

## **REMARKS**

Claims 1-18 are pending in the present application, and stand rejected.

Claims 1, 7, 8 and 13 have been amended. New claims 19 - 21 have been added.

The drawings have been objected to because of the items described on Form PTO 948. A set of formal drawings is submitted herewith.

The Examiner has objected to claims 1, 7 and 13 because the phrase "said selected amount and time" lacks sufficient antecedent basis. By the foregoing amendment, this phrase has been changed to --selected investment assumptions--. Support for this in the specification is found, for example, on page 9, lines 7 - 10.

The Examiner has objected to claim 8 as containing "said steps," without antecedent basis. Claim 8 has been amended to refer to –calculations--.

New claim 19 has been added. Disclosure support is found, for example, in the specification at page 11, lines 7 - 8, and in Figure 4.

New claim 20 has been added. Disclosure support is found, for example, in the specification at page 13, lines 1 - 6.

New claim 21 has been added. Disclosure support is found, for example, in the specification on page 8, at lines 2 - 3.

Claims 1 - 18 stand rejected as being unpatentable under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,774,881 (Friend, et al.), as combined with U.S. Patent No. 5,802,501 (Graff).

Friend, et al., describes a system that uses simulations of markets, rather than historical data as claimed. In addition, the system of Friend has a different purpose from that of the present invention. The method and system of the present invention determines the performance of a financial plan over historical periods. The method of Friend is designed to identify an ideal asset allocation mix for a pension fund or other fund. In the system of Friend, the operator inputs plan member definition information, asset information, and plan benefit information for a given pension plan. A projected level percentage or average percentage of payroll contribution to

implement the plan is then computed based on selected asset allocation by averaging the results of projections of costs developed taking into account assets on hand, simulation of future investment returns, simulation of future benefit disbursements and simulation of future payrolls. The method of Friend calculates the contributions as a percentage of payroll as part of the simulation.

In contrast, the invention of claim 1, as amended, recites a method for evaluating financial plans of individuals. The individual selects an initial value, at least one contribution amount, to be made at a predetermined time, and at least one withdrawal amount, to be made at a predetermined time subsequent to the time of the contribution. In designing a financial plan for an individual, the individual or the individual's financial planner must select the amounts that the individual anticipates investing, and the amounts that the individual anticipates withdrawing. Ordinarily, most of the contributions are made earlier during the plan, while the individual is working, and withdrawals are largely made during retirement. Of course, individuals may provide for withdrawals earlier, for such items as educational expenses for children, by way of example. In contrast, Friend provides for a calculation of the contribution amounts. While this technique may be realistic for determining optimum asset allocations for a pension fund, this technique is useless for evaluating financial plans of individuals.

It would not be obvious for one of ordinary skill in the art to modify Friend's use of simulation data to substitute historical data. The inventor has determined that historical data is superior to simulations in the evaluation of personal financial plans. Simulations of return needs to be based on inputs that statistically may result in similar results, but provides no context for understanding the types of markets that would be necessary to produce those results. To simulate results, one has to make assumptions about the risk/return and correlation of assets, but these are unpredictable even over long periods of time. In fact, the use of simulations can readily provide results that are unrealistic, as the results fall outside of the bounds of what happened in real market environments over any time period. Indeed, the use of simulations actually misleads the investor as to potential outcomes. Unlike a random distribution of returns based on one set of risk/return and correlation inputs, the method of claim 1 uses historical data factors in the unpredictability of these relationships between assets and therefore allows one to test the

likelihood that the results from a simulation based on assumed risk/return and correlation inputs fits into the reality of the natural randomness of the market. While the natural randomness of the market may be statistically estimated, simulations based on such estimates can be very misleading. For example, using the crash of 1929 and the Great Depression period, as well as all the other historical periods, the method of claim 1 can identify financial plans that would have been successful in all historical periods. Those same plans, when evaluated using simulated market performance based on the standard methodology in measuring financial distribution sets of monte carlo and log normal distributions, may be indicated to have a 1 in 10 or higher chance of failing. These superior results further indicate the nonobviousness of the use of the method of the invention.

Friend also generates a risk tolerance baseline based on a predefined risk tolerance factor. By contrast, the method of the invention simply employs the assumptions of the individual's financial plan against historical data. This permits the user, such as the individual or the individual's financial planner, to assess risk directly.

The Examiner states that it would be obvious to utilize the updating of asset values disclosed by Graff in the investment planning invention of Friend, et al. However, Friend, et al., and Graff, are directed to entirely different purposes. Graff describes a method of splitting property into two different components. One of these is an estate for years, which Graff describes as a fixed-income investment. In determining the present value of this fixed-income investment, the tax consequences of the investment earnings are calculated. There is no calculation of the future value of the property, apart from the present value of the income stream. This technique has nothing to do with calculating the effect of taxes on the amount and value of assets contained in a financial plan based on performance of the assets. There is simply no motivation for one of ordinary skill in the art to attempt to modify Friend, et al., in view of the very different disclosure of Graff.

For these reasons, it is respectfully submitted that claim 1, as amended, is allowable over the prior art of record.

Claims 7 and 13, as amended, are similar to claim 1, and are allowable for the reasons that claim 1 is allowable.

Claims 2 - 4 and 6 depend from claim 1, and are allowable for the reasons that claim 1 is allowable.

Claim 5 depends from claim 1, and adds the step of making an adjustment to investment value to simulate tax effects. As Friend, et al. discloses a method specifically designed for pension funds, there is no motivation to modify Friend, et al. in this manner. As noted above, there would be no motivation to combine Graff and Friend. For this reason, as well as the reasons set forth above in connection with claim 1, claim 5 is allowable over the prior art of record.

Claims 8 - 12 are similar to claims 2 - 6, and are allowable for the reasons that claims 2 - 6 are allowable. Claims 14 - 18 are similar to claims 2 - 6, and are allowable for the reasons that claims 2 - 6 are allowable.

New claim 19 provides for identification of the time intervals employed for calculation of the results. This step provides additional guidance for the user in determining whether to adjust the financial plan. For example, the user may note that unacceptable results were obtained only when early years of the plan covered a severe bear market, such as from 1929 to 1939. The user may decide that the likelihood of such a severe bear market is small, and discount the effect of such results. Similarly, the user may note that the best results were obtained only when an unusual bull market period, such as 1992 to 1998, was covered by the early years of the plan, and discount such results in determining the likely outcome. This type of detailed analysis of results is neither taught nor suggested by Friend, et al. For this reason, as well as the reasons set forth with respect to claim 1 above, claim 19 is allowable over the prior art of record.

New claim 20, which depends from claim 4, recites that the selected financial goal constitutes certain withdrawals in the future. In contrast, Friend et al. discloses comparing results to a predefined risk tolerance factor. A factor may be the number of times in a given interval that pension fund assets fall below a certain value. Nothing in Friend et al. suggests that a goal may be certain withdrawals in the future. For this reason, as well as the reasons set forth with respect to claim 1 above, claim 20 is allowable over the prior art of record.

New claim 21 provides that the user may designate changes in asset allocations during the plan. This is realistic, as asset allocations in an individual financial plan will typically be more conservative during years when contributions have ceased, and less conservative during early

years of a plan. Friend, et al. neither suggests nor discloses reallocation. Indeed, Friend, et al. seeks to identify the optimal asset mix for the entire period under consideration. Moreover, Friend, et al is concerned with pension plans that typically include both contributions, by employed plan participants, and payments, to retired plan participants, in each year. As a result, a pension plan would not typically change asset allocations drastically over time.

It is respectfully submitted that all of the pending claims are in condition for allowance. Early reconsideration and allowance of the claims are respectfully requested.

Respectfully submitted,

Date: July 9, 2001

Robert E. Rosenthal Registration No. 33,450 Attorney for Applicant

DUANE, MORRIS & HECKSCHER LLP One Liberty Place Philadelphia, PA 19103-7396 (215) 979-1000 (1.) [1.(die amende)]

A method for evaluating financial plans, comprising the steps

of:

[receiving from a user a predetermined initial value of an investment, at least one predetermined contribution amount at a predetermined contribution time, and at least one predetermined withdrawal amount at a predetermined withdrawal time subsequent to the predetermined contribution time;]

calculating the change in {a} [said] predetermined initial value of an investment over a time interval based on changes in value over a first historical time interval to obtain a changed investment value;

updating the changed investment value based on <del>{said}</del> selected <del>{amount and time}</del> [investment assumptions] to obtain a further changed investment value; and

calculating the change in the further changed investment value over a second time interval based on changes over a second historical time interval to obtain a further investment value, and

repeating said steps of calculating, updating and again calculating with respect to a third historical time interval and a fourth historical time interval, respectively; and

after at least one of the calculations, adjusting the investment value based on at least one of {a} [said] contribution amount and {a withdrawal amount.} [said withdrawal amount.]

<del>{7.}</del>

[7. (Once amended)] A system for evaluating financial plans, comprising:

[means for receiving from a user a predetermined initial value of an investment, at least one predetermined contribution amount at a predetermined contribution time, and at least one predetermined withdrawal amount at a predetermined withdrawal time subsequent to the predetermined contribution time;]

means for calculating the change in {a} [said] predetermined initial value of an investment over a time interval based on changes in value over a first historical time interval to obtain a changed investment value;

means for updating the changed investment value based on {said} selected {amount and time} [investment assumptions] to obtain a further changed investment value;

means for calculating the change in the further changed investment value over a second time interval based on changes over a second historical time interval to obtain a further investment value, and

means for further calculating, updating and again calculating with respect to a third historical time interval and a fourth historical time interval, respectively; and

means for after at least one of the calculations, adjusting the investment value based on at least one of a contribution amount and a withdrawal amount.  $\{8.\}$ 

[8.(once amended)] The system of claim 7, further comprising means for presenting the result of said {steps to an individual.} [calculations to an individual.] {13.}

[13. (Once amended)] A storage medium having stored therein a plurality of instructions, wherein the plurality of instructions, when executed by a processor, cause the processor to perform the steps of:

[receiving from a user a predetermined initial value of an investment, at least one predetermined contribution amount at a predetermined contribution time, and at least one predetermined withdrawal amount at a predetermined withdrawal time subsequent to the predetermined contribution time;]

calculating the change in {a} [said] predetermined initial value of an investment over a time interval based on changes in value over a first historical time interval to obtain a changed investment value;

updating the changed investment value based on {said} selected {amount and time} [investment assumptions] to obtain a further changed investment value; and calculating the change in the further changed investment value over a second time interval based on changes over a second historical time interval to obtain a further investment value, and

repeating said steps of calculating, updating and again calculating with respect to a third historical time interval and a fourth historical time interval, respectively; and after at least one of the calculations, adjusting the investment value based on at least one of a contribution amount and a withdrawal amount.



The bracketed numbers refer to the Page and Paragraph for the **start** of the paragraph in both the **old** and the **new** documents.

[1:1 1:1] Changed	"1. " to "1.(once amended) "
[1:2 1:2] Add Para	"receiving from contribution time;"
[1:2 1:3] Changed	"in a predetermined" to "in said predetermined"
[1:3 1:4] Changed	"on said selected amount and time" to "on selected assumptions"
[1:6 1:7] Changed	"of a contribution" to "of said contribution"
[1:6 1:7] Changed	"a withdrawal amount." to "said withdrawal amount."
[1:7 1:8] Del Paras	"2. The method of asset categories. "
[1:12 1:8] Changed	"7. " to "7. (Once amended) "
[1:13 1:9] Add Para	"means for receiving contribution time;"
[1:13 1:10] Changed	"in a predetermined" to "in said predetermined"
[1:14 1:11] Changed	"on said selected amount and time" to "on selected assumptions"
[1:18 1:15] Changed	"8. " to "8.(once amended) "
[1:18 1:15] Changed	"steps to an individual." to "calculations individual."
[1:19 1:16] Del Para	s ''9. The system of asset categories. ''
[2:3 1:16] Changed	"13. " to "13. (Once amended) "
[2:4 1:17] Add Para	"receiving from contribution time;"
[2:4 2:1] Changed	"in a predetermined" to "in said predetermined"
[2:5 2:2] Changed	"on said selected amount and time" to "on selected assumptions"